**Ouality Control** 

NCR: Y	'es / No				WORK ORDER NON-C	ONFO	PRIV	/IANCE / UPE	DATE				
					_					QA Closed:	Da	ite:	
Work Orde	er:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Part N					Rework Scrap			Skid-tube Aachining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	<b>—</b>	Engineering Quality
NCR N	lo.				Use-as-is Work Order Update	The		oforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	-	Other
Root		<u> </u>		Descri	ption of work order update	Initia	ıl	Act	ion	Sign &		T	· · · · · · · · · · · · · · · · · · ·
Cause	Date	Step	Qty	C	or Non-conformance	Chief E	ng	Descr	iption	Date	Verificatio	n	QC Inspector
Doc/Data													
Equip/Tooling					•							1	
Operator							Ì					1	
Material		ļ											
Setup					•					·		-	
Other													
Process												l	
Supplier													
Training							1						
Unapproved							Tro						
Landir	ng Gear				General FA	AULT CA	AIEC	JUKY					
Lanuir	Bending			Г	Bend	Grai	in			Ovalized		$\Box$	Pressure/Forced
	Centre N	ot Conce	ntric to (	<sub>2/8</sub>	BOM/Route	Hard		re	<del> </del>	Over/Under	toloranco	<del></del>	Temperature/Cure
ł	Cracks	or conce	intric to v	5′3   <del>-</del>	Broken/Damaged	⊢⊸∣		on Incomplete		Part Incorre		-	Weld
	Crushed/	Crimped		<u> </u>	Burrs	<b>⊢</b> '		ions Incomplete/U	Inclear	Part Lost/Mi		-	Wrong Stock Pulled
	Cuffs	cipeu			Contamination	<del></del>		nance	-	Part Moved	331116	Ш,	withing stock i dired
	Heat Trea	at		<u> </u>	Countersink	<del></del>	label			Positioned V	Vrong		
	Inspectio		Tube		Cut Too Short	_	read			Power Loss/	=	П	Other
	Ripples in		•		Drill Holes	Offs			<u> </u>	1	<del>0</del> -		
	Torque V		Extrusio	n	Drawing			alibration					
	Turning S	equence	!		Finish	Out	of S	equence			<del></del>		

Outside Dimensions

Date:

DQA:

Wave/Twist in Tube

Work	Orde	r ID	107258
Septembe	er-23-13	11:44.	:46 AM

Work Ord September-23-1				*1()7	258*						Page 2
Item ID: Revision ID: Item Name:	D2353 Stiffener			Accept	*N900	040	100	)* s	etup Star Stop	ı u.	S1* S2*
Start Date: Required Date Reference:	9/23/13 :: 9/23/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item I Customer:	ID:			S4.		413
Approvals:		an:		Tooling: SPC (Y/N):		ate:		ŀ	tun Stai Sto	"17	R1* R2*
Sequence ID/ Work Center I 130 *130* Brake NC Brake NC	ID	Operation Description  NC BRAKE  Memo Bend per De	wg D2353	Set Up/ Run Hours 0.00	Tool ID	Tool #  DAS 30 9-89	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
*140 *140* QC Quality Control		QC5- Inspect part compl	eteness to step on W/O	0.00 DAS 9-89 0.00 J3-\\	L-Y			10			·
150 *150* HandFinish Hand Finishing		Chemical Conversion C	oat per QSI005 4.1	0.00				10	1B	131119	? 

NCR:	⁄es	/ No				WORK ORDER NON-0	COI	VFOR	MANCE / UPI	DATE	QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE		/PROCESS	
Part N	•					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	Π	Initial	Act	ion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
						F	AUL	T CATE	GORY				
Landi		1				General	_	7		_	7	<b></b>	7
		Bending Centre No Cracks Crushed/ Cuffs	Crimped	ntric to	o/s	Bend BOM/Route Broken/Damaged Burrs Contamination		Instruct Mainte	ion Incomplete ions Incomplete/Unance	Jnclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved	ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	<u> </u>	Heat Trea			<u> </u>	Countersink	_	Mislabe		<u> </u>	Positioned V		٦.
	$\vdash$	Inspectio		Tube	<u> </u>	Cut Too Short	<u> </u>	Misread	i	L	Power Loss/	Surge	Other
		Ripples ir			<u> </u>	Drill Holes	$\vdash$	Offset				····	
	$\vdash$	Torque V			n	Drawing	-	4	Calibration				
1	1	Turning S	equence		1	Finish	1	Out of 9	Sequence				

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

<b>**</b> 7		IT	107258
WALL	iraer		111/258
VVUIE	<b>Oluci</b>		10/200

## \*107258\*

Page 3

September-23-1	3 11:44:46	AM		· · · · · · · · · · · · · · · · · · ·	/:na`` 							1 age 3	
Item ID: Revision ID: Item Name:	D2353 Stiffener			Accept	*N900	040	100	)*	Setup	Start Stop	*N:	S1* S2*	
Start Date: Required Date: Reference:	9/23/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item l Customer:	ID:						17	
Approvals:	Process P QC:	lan:	Date:	Tooling: SPC (Y/N):		ate:			Run	Start Stop	*NI *N	R2*	
Sequence ID/ Work Center I 155 *155* QC Quality Control	D	Operation Description QC7-Inspect Chemical C	Conversion Coat	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Qty		Reject Number 3-//-2	Insp. Stamp  DAS  34 9-89	
*160 *160* Powdercoat Powder Coating		Black Sandtex(Ref.4.3.5)  M//1334  Memo START FO	0.00	0.00 0.00 OVERIZEMPERATURE	:		÷	10	ø		3- <i>  -0</i>	<b>U</b>	D/ 3 94
170 *170* QC Quality Control		QC3- Inspect Part Finisl  Memo	h	0.00				10	) 	6_9	ا <i>ر د</i> ر الح	(/30	

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									DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-C	CONFOR	MANCE / UP	PDATE	OA Classed	Data	
					T				QA Closed:	Date:	
Work Orde	er:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N	lo				Rework Scrap Use-as-is Work Order Update	Ther	Skid-tube  Machining  moforming  Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		1		Descri	ption of work order update	Initial	T Ac	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En		cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training											
					<del></del>	AULT CAT	EGORY				
Landii	Bending Centre N Cracks Crushed,			o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination	Instru		/Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved	ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Heat Treat Countersink					Mislat	eled		Positioned \	_	loshar
	Inspection	on Strip in	rube	1	Cut Too Short	Misre	<b>3</b> 0		Power Loss/	Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Work Orde September-23-13				*107				Page 4				
Revision ID:	D2353 Stiffener			Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	*N: *N:	S1* S2*
Required Date:	9/23/13 9/23/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item II Customer:	D:						
Reference:							-	]	Run	Start	*N1	D1*
Approvals:	Process Pl QC:	an:	Date:	Tooling: SPC (Y/N):		te:				Stop	*N	R2*
Sequence ID/ Work Center II	)	Operation Description Identify as per dwg & Ste	ock Location:5	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Qt	•	Reject Number	Insp. Stamp DAS 26
*180* Packaging Packaging		Memo		0.00				168			1:	9-89 3-11-2,

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

190

\*190\*

Quality Control

13/11/21 A) WIF 13-11-21

										DQA:	Date:	
NCR: Y	'es / No				WORK ORDER NON-	CONF	ORN	MANCE / UPE	DATE			
					_					QA Closed:	Date:	
Work Orde	or <sup>.</sup>				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WOIN OIG					Rework	1 l		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo.				Scrap	1		Machining	d. Eng. Coor.	Quality		
					Use-as-is	<b>∮                                    </b>		oforming	Small Fab Finishing		re/Packaging	Other
NCR N	lo			· · · · · · · · ·	Work Order Update	]		Large Fab	Composite		Supplier	
Root				Descri	tion of work order update	Init	ial	Act	ion	Sign &		
Cause	Date	Step	Qty	C	or Non-conformance	Chief	Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup							Ī			į		
Other												
Process												
Supplier						1						
Training							.					
Unapproved		1	<u> </u>			<u> </u>	.					
						AULT	CATE	SORY				
Landi	ng Gear				General				-	1	_	1
:	Bending				Bend	$\mathbf{H}$	rain			Ovalized	<u> </u>	Pressure/Forced
•	<del></del> 1	Centre Not Concentric to O/S BOM/Route						Hardware Over/Under				Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	Inspection Incomplete Part Incorrect				· · · · · · · · · · · · · · · · · · ·	Weld	
	Crushed/Crimped Burrs						Instructions Incomplete/Unclear				ssing	Wrong Stock Pulled
	Cuffs			<u> </u>	Contamination	$\vdash$		nance	<u> </u>	Part Moved		
	Heat Tre			<u> </u>	Countersink	-	islabe		<u> </u>	Positioned V	· ·	7 .
	Inspection	on Strip in	Tube		Cut Too Short	M	isread			Power Loss/	Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

**Picklist Print** 

September-23-13 11:44:46 AM

Work Order ID:

107258

Parent Item:

D2353

Parent Item Name:

Stiffener

**Start Date:** 9/23/13

Required Date: 9/23/13

Page 1

Start Qty: 6.00

Required Qty: 6.00

Comments:

IPP Rev: A Removed from 9 Digit 05-11-10 EC

IPP: B 06.11.15 waterjet

EC

IPP: c 06.12.07 ecn 836

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.050 2024-T3 .050 sheet		Purchased	No			100	sf	140.1287	0.1463	0.924	Ae	_13.1	1.00
				<b>Location</b>		Loc Qty	<u>Lo</u>	c Code					
				MAT022		140.1287				<del></del>			2
				124	643	140.1287			12	4643	~~~	1.5	フ

		DQA:	Date:	
NCB: Vos / No	WORK OPDER NON-CONFORMANCE / LIDDATE			

NCR. I	<b>es</b> ,	/ NO				WORK ORDER 14014-C	.016		VIAIVEL / OF	DAIL	QA Closed:	Date	
Work Orde	r.					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Part N	_	······				Rework Scrap		ſ	Skid-tube Machining	Crosstube Small Fab	i e	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	o	· u		<del></del>		Use-as-is Work Order Update			noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other
Root					Descri	ption of work order update	lr	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Chi	ef Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data		•											
Equip/Tooling	_												
Operator	_												
Material	_												
Setup													
Other	_												
Process													
Supplier	4												
Training	_												
Unapproved					<u> </u>						<u> </u>		
							AUL	T CATE	GORY				
Landir						General					1	Г	7.
	_	Bending			o/s	Bend	$\vdash$	Grain			Ovalized	<u> </u>	Pressure/Forced
	-	Centre No	ot Concei	ntric to	0/s  -	BOM/Route	_	Hardwa		<u> -</u>	Over/Under Part Incorred	<b>⊢</b>	Temperature/Cure Weld
,		Cracks	له ما مداند		-	Broken/Damaged	$\vdash$	•	ion Incomplete	'I Imploar	-	<b></b>	Wrong Stock Pulled
	-	Crushed/0 Cuffs	umpea		<u> </u>	Burrs Contamination	-	Mainte	tions Incomplete/	Unclear	Part Lost/Mi Part Moved	2211B	
	$\dashv$	cuiis Heat Trea	•		-	Countersink	$\vdash$	Mislabe			Positioned V	Vrong	
	_	nspection		Tubo	$\vdash$	Cut Too Short	$\vdash$	Misread		-	Power Loss/	· ·	Other
	_	Ripples in	-	iube	-	Drill Holes		Offset	u .	L	1. OMEL FOSS	Jui 8c	Totales
	_	Torque W		etrusio	,	Drawing	$\vdash$		Calibration				
	-	Turning S			" <b> </b>	Finish	$\vdash$		Sequence		****		

Outside Dimensions

Wave/Twist in Tube

DART AEROSPACE LTD	Work Order: \	07258
Description: Stiffener	Part Number:	D2353
Inspection Dwg: D2353 Rev: C		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototy	ре
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1	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
	15.198	+/-0.010	15.198	-		· V	JKM-01
	0.966	+/-0.005	.966	_		V	
	0.354	+/-0.010	1354			V	
Ø	0.128	+0.005/-0.000	.130	_		V	
							·
					,		

		<u>Das</u>		
Measured by:	Audited by:	27	Prototype Approval:	N/A
Date: 13:11:02	Date:	9-89 13 11 04	Date:	N/A
		70 7		

Rev	Date	Change	Revised by	Approved
A	04.06.25	New Issue P/O D350-616-015	KJ/JLM	1
В	06.12.20	Dwg Rev. updated	KJ/JLM 🚓	- 411





